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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,668	01/14/2002	Iiris Pulkkinen	187-64	2302

7590 10/06/2003

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EXAMINER	
BRADFORD, RODERICK D	
ART UNIT	**PAPER NUMBER**
3762	

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No.	Applicant(s)	
	10/046,668	PULKKINEN ET AL.	
	Examiner	Art Unit	
	Roderick Bradford	3762	

-- The MAILING DATE of this communication appears on the cover sheet with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Crossing et al. U.S. Patent No. 5,458,548.

Examiner considers the right half of display 14 in figure 8 to be the first end and the left half of display 14 to be the second end.

Referring to claim 1, Crossing discloses a heart rate monitor measuring a person's heart rate comprising:

- A display for displaying heart information (Fig 8)
- A display element for displaying a settable minimum and maximum limit for a desired heart rate level (Fig 8)
- A display element unit controlled by the heart rate level and provided with several display segments, one or more of the display element segments contained in the display element being used at a time as an indicator controlled by the measured heart rate level to illustrate the height of the heart rate level with respect to the minimum and maximum for the desired heart rate (Fig 8)

- Wherein the display element for displaying a settable minimum limit for the heart rate level is located at a first end of the display element unit on the same side of the display element (Fig 8) and the display element for displaying a settable maximum limit for the heart rate level is located at a second end of the display element unit on the same side of the display element (Fig 8).

Referring to claims 2, 3 and 14, wherein the display element for displaying a settable minimum and maximum limit for the heart rate level and the first and second end of the display element unit controlled according to the heart rate level are located on the same side of the display with respect to both a center line of the display parallel to the reading direction of the display and a center line of the display perpendicular to the reading direction of the display (Fig 8).

Referring to claim 13, wherein the heart rate monitor comprises means for measuring a heart rate signal, means for modifying the signal measured by the measurement means, data processing means for finding out the heart rate level from the signal modified by the modification means, the data processing means being connected to the display, and a user interface for controlling the operation of the patient (Fig 5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crossing et al. U.S. Patent No. 5,458,548.

Referring to claim 4, Crossing discloses the claimed invention except for wherein the display element for displaying a settable minimum limit for the heart rate level and the first end of the display element unit controlled according to the heart rate level are located on the same side of the display as the display element for displaying a settable maximum limit for the heart rate level and the second end of the display element unit controlled according to the heart rate level.

It would have been an obvious matter of design choice to one skilled in the art to modify the device of Crossing to include a display element that displays a settable minimum limit for the heart rate level at the first end of the display element unit controlled according to the heart rate level are located on the same side of the display as the display element for displaying a settable maximum limit for the heart rate level

and the second end of the display element unit controlled according to the heart rate level, since applicant has not disclosed that having a display element for displaying a settable minimum limit for the heart rate level and the first end of the display element unit controlled according to the heart rate level are located on the same side of the display as the display element for displaying a settable maximum limit for the heart rate level and the second end of the display element unit controlled according to the heart rate level provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any display arrangement such as the display arrangement as taught by Crossing to display the parameters.

Referring to claim 5, Crossing discloses the claimed invention except for wherein the display element unit controlled on the basis of the measured heart rate level is directed such that the direction of motion of the indicator controlled on the basis of the measured heart rate level is substantially parallel to the reading direction of the display elements for the minimum and the maximum limit of the heart rate level.

It would have been an obvious matter of design choice to one having ordinary skill in the art to modify the device of Crossing to include a display element unit that is controlled on the basis of the measured heart rate level is directed such that the direction of motion of the indicator controlled on the basis of the measured heart rate level is substantially parallel to the reading direction of the display elements for the minimum and the maximum limit of the heart rate level, since applicant has not disclosed that a display element unit which is controlled on the basis of the basis of the measured heart rate level is directed such that the direction of motion of the indicator

controlled on the basis of the measured heart rate level is substantially parallel to the reading direction of the display elements for the minimum and the maximum limit of the heart rate level provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any display element unit, such as the display as taught by Crossing as a means to read the parameters.

6. Claims 1-12, 14 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fabrizio et al. U.S. Patent No. 6,345,197.

Referring to claim 1, Fabrizio discloses a heart rate monitor measuring a person's heart rate comprising:

- A display for displaying heart information (Fig. 1)
- A display element for displaying a settable minimum and maximum limit for a desired heart rate level (Figs. 7d, 7e and column 3, lines 25-33)
- A display element unit controlled by the heart rate level and provided with several display segments, one or more of the display element segments contained in the display element being used at a time as an indicator controlled by the measured heart rate level to illustrate the height of the heart rate level with respect to the minimum and maximum for the desired heart rate (Fig 7a, 7d and 7e).

However, Fabrizio fails to disclose wherein the display element for displaying a settable minimum limit for the heart rate level is located at a first end of the display element unit on the same side of the display element and the display element for

displaying a settable maximum limit for the heart rate level is located at a second end of the display element unit on the same side of the display.

It would have been an obvious matter of design choice to one skilled in the art to modify the device of Fabrizio to include a display element for displaying a settable minimum limit for the heart rate level is located at a first end of the display element unit on the same side of the display element and the display element for displaying a settable maximum limit for the heart rate level located at a second end of the display element unit on the same side of the display, since the applicant has not disclosed that a display element for displaying a settable minimum limit for the heart rate level is located at a first end of the display element unit on the same side of the display element and the display element for displaying a settable maximum limit for the heart rate level located at a second end of the display element unit on the same side of the display provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any display element unit, such as the display element unit as taught by Fabrizio as a means to display the heart parameters to the patient in an easy to read format.

Referring to claims 2, 3 and 14, Fabrizio discloses the claimed invention except for wherein the display element for displaying a settable minimum and maximum limit for the heart rate level and the first and second end of the display element unit controlled according to the heart rate level are located on the same side of the display with respect to both a center line of the display parallel to the reading direction of the

display and a center line of the display perpendicular to the reading direction of the display.

It would have been an obvious matter of design choice to one skilled in the art to modify the device of Fabrizio to include a display element for displaying a settable minimum and maximum limit for the heart rate level and the first and second end of the display element unit controlled according to the heart rate level are located on the same side of the display with respect to both a center line of the display parallel to the reading direction of the display and a center line of the display perpendicular to the reading direction of the display, since the applicant has not disclosed that a display element for displaying a settable minimum and maximum limit for the heart rate level and the first and second end of the display element unit controlled according to the heart rate level are located on the same side of the display with respect to both a center line of the display parallel to the reading direction of the display and a center line of the display perpendicular to the reading direction of the display provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any display element unit, such as the display element unit as taught by Fabrizio as a means to display the heart parameters to the patient in an easy to read format.

Referring to claim 4, Fabrizio discloses the claimed invention except for wherein the display element for displaying a settable minimum limit for the heart rate level and the first end of the display element unit controlled according to the heart rate level are located on the same side of the display as the display element for displaying a settable

maximum limit for the heart rate level and the second end of the display element unit controlled according to the heart rate level.

It would have been an obvious matter of design choice to one skilled in the art to modify the device of Fabrizio to include a display element that displays a settable minimum limit for the heart rate level at the first end of the display element unit controlled according to the heart rate level are located on the same side of the display as the display element for displaying a settable maximum limit for the heart rate level and the second end of the display element unit controlled according to the heart rate level, since applicant has not disclosed that having a display element for displaying a settable minimum limit for the heart rate level and the first end of the display element unit controlled according to the heart rate level are located on the same side of the display as the display element for displaying a settable maximum limit for the heart rate level and the second end of the display element unit controlled according to the heart rate level provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any display arrangement such as the display arrangement as taught by Fabrizio to display the parameters.

Referring to claim 5, Fabrizio discloses the claimed invention except for wherein the display element unit controlled on the basis of the measured heart rate level is directed such that the direction of motion of the indicator controlled on the basis of the measured heart rate level is substantially parallel to the reading direction of the display elements for the minimum and the maximum limit of the heart rate level.

It would have been an obvious matter of design choice to one having ordinary skill in the art to modify the device of Fabrizio to include a display element unit that is controlled on the basis of the measured heart rate level is directed such that the direction of motion of the indicator controlled on the basis of the measured heart rate level is substantially parallel to the reading direction of the display elements for the minimum and the maximum limit of the heart rate level, since applicant has not disclosed that a display element unit which is controlled on the basis of the basis of the measured heart rate level is directed such that the direction of motion of the indicator controlled on the basis of the measured heart rate level is substantially parallel to the reading direction of the display elements for the minimum and the maximum limit of the heart rate level provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any display element unit, such as the display as taught by Fabrizio as a means to read the parameters.

Referring to claim 6, wherein the heart rate monitor comprises means for selecting a display mode from a set of at least two display modes (column 3, line 67 and column 4, lines 1-3).

Referring to claim 7, wherein in a first display mode, the minimum limit and the maximum limit for the heart rate level are shown as heart reading (Fig. 7e and 7d).

Referring to claims 8 and 15, Fabrizio discloses the claimed invention except for wherein a second mode, the minimum limit and the maximum limit for the heart rate level are shown as proportion of the maximum heart rate. It would have been an obvious matter of design choice to one skilled in the art to modify the teachings of

Fabrizio to include a display wherein the second display mode, the minimum the minimum limit and the maximum limit for the heart rate level are shown as proportion of the maximum heart rate, since the applicant has not disclosed that having a second display mode wherein the minimum limit and the maximum limit for the heart rate level are shown as proportion of the maximum heart rate provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any display that displayed the minimum and maximum heart rate, such as the display as taught by Fabrizio as a means to provide heart rate information to the user.

Referring to claims 9 and 10, Fabrizio discloses the claimed invention except for wherein the indicator controlled on the basis of the measured heart rate level and located in the display element unit is different in the second and the first display mode and wherein the means for changing the display mode are arranged to change the indicator controlled on the basis of the measured heart rate level in accordance with the display mode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device as taught by Fabrizio, with an indicator that is controlled on the basis of the measured heart rate level and located in the display element unit is different in the second and the first display mode wherein the means for changing the display mode are arranged to change the indicator controlled on the basis of the measured heart rate level in accordance with the display mode since it was well known in the art to have an indicator that is controlled on the basis of the measured heart rate level and located in the display element unit is different in the

second and the first display mode as a means of showing different level of heart rate activity.

Referring to claims 11 and 16-19, wherein the means for changing the display mode are arranged to change the same display mode for the display element for displaying the minimum limit for the heart rate level, the display element for displaying the maximum limit for the heart rate level, and for the actual main display element for the heart rate level contained in the heart rate monitor (13).

Referring to claim 12, wherein the heart rate monitor is a heart rate monitor is a heart rate monitor equipped with a fastening wristband and capable of attachment to a human hand, onto a wrist in particular (Fig. 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roderick Bradford whose telephone number is (703) 305-3287. The examiner can normally be reached on Monday - Friday 7 a.m. - 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (703) 308-5181. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

R. Bradford

R.B.
September 23, 2003

Angela D. Sykes

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